DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 13.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-009554 Address: 333 Burma Road **Date Inspected:** 12-Oct-2009

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure Prime Contractor: American Bridge/Fluor Enterprises, a JV **OSM Departure Time:** 1530

Contractor: Oregon Iron Works Clackamas, Or. **Location:** Clackamas, OR

CWI Name: Mike Gregson, Jose Salazar **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A Yes N/A N/A **Qualified Welders:** No **Verified Joint Fit-up:** Yes No N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** Hinge K Pipe Beams

Summary of Items Observed:

The Quality Assurance Inspector Sean Vance arrived on site at Oregon Iron Works, Inc (OIW) in Clackamas, OR, to randomly observe the in process welding of the Hinge K Pipe Beam assemblies. The QA Inspector arrived on site to randomly observe the OIW Quality Control (QC) Inspectors in process and completed visual and nondestructive testing. Upon the arrival of the QA Inspector the following observations were made:

OIW Fabrication Shop-Bay 3

Hinge-K Pipe Beam Assembly 102A-1: 10/12/09

all1-1 Forging to all0-1 Base Plate

QA Inspector noticed that OIW had previously placed this forging assembly 102A-1 in position and was in-process of machining the completed stiffeners, utilizing a mechanical machining bit. QA Inspector had previously measured the stiffener heights to be approximately 662mm and noted that approximately 12mm of material (485W) was in process of being removed, to achieve a desired result of 650mm (+3mm/-10mm), which is in accordance to contract requirements. QA Inspector had previously spoken with OIW machinist and OIW explained that the mechanical machining bit was set to remove approximately 1/32" (.8mm) of material (485W), per each cutting pass. QA Inspector noted that once the machining process is complete, OIW will perform dimensional measurements utilizing a laser tracker, prior to fitting the a109 (Post Tension Cap) plates.

Hinge-K Pipe Beam Fuse Assembly 120A-3: 10/12/09

a124-12 Half Fuse to a124-10 Half Fuse

QA Inspector spoke with QC Inspector Jose Salazar and Mr. Salazar explained that welder #F17, Mr. Igor Frolov, was currently in-process, of performing the weld clean-up and grinding, on the previously marked interior of fuse

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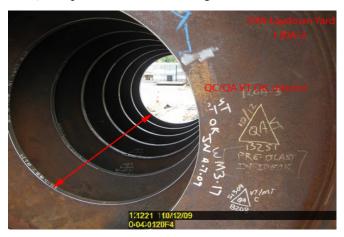
assembly 120A-3. Mr. Salazar explained to QA Inspector that additional weld clean-up, on the interior base metal/ring stiffeners, would be needed, prior to transfer to OIW Vancouver painting facility, to meet the criteria of AWS D1.5 and contract requirements. Mr. Salazar explained that the interior areas that were marked up included weld blending, excessive weld spatter, sharp edges and various minor base metal gauges, to be blended and transitioned on the fuse assembly base metal and interior stiffener rings.

Note: QC Inspector Jose Salazar later notified QA Inspector that welder #F17, Mr. Igor Frolov had completed the weld-clean up on the previously marked areas on these fuse assembly 120A-3 and Mr. Salazar had verified that the work had been completed and visually accepted these above mentioned fuse assemblies. QA Inspector also verified that the previously marked up areas by Mr. Salazar had been completed and noted additional interior weld spatter, to be removed. QA Inspector informed Mr. Frolov of the additional weld spatter that needed to be removed and QA Inspector witnessed Mr. Frolov performing this.

QA Inspector noted that this fuse assembly 120A-3, would be transferred to OIW Vancouver, WA. painting facility and the interior blasted at a later date and an OIW QC Inspector and QA Inspector will then perform an after blast visual inspection, per AWS D1.5 and contract requirements, prior to OIW applying inorganic zinc primer coat. See attached picture below.

Material, Equipment, and Labor Tracking

QA Inspector Sean Vance performed a verification of material, personnel and equipment involved with the project. The QA Inspector observed at Oregon Iron Works: 5 OIW production personnel and 2 QC Inspectors.



Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By: Vance, Sean Quality Assurance Inspector

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Reviewed By: Adame,Joe QA Reviewer